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EVALUATING ENVIRONMENTAL EDUCATION OF TEXTILE STUDENTS AND THEIR ATTITUDES TOWARD ENVIRONMENTAL DEGRADATION

Research Article

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Abstract

Bangladesh has been experiencing serious environmental degradation for last few years specially for textile and apparel industries. The objective of this research is to evaluate the level of environmental education of outgoing textile undergraduate students and their perception about the environmental degradation. A questionnaire was developed and administered to textile outgoing and 1st semester students to assess their environmental concern, knowledge and responsibility. Two sample mean test was applied to differentiate the level of understanding of these two groups of students. Binary logistic regression was used to identify the most potential source to build up the consciousness among the students about pollution. The multiple regression analysis was done to assess the comparative role of knowledge and concern for showing the responsibility towards the environment. The result indicated that the level of understanding of outgoing students on environmental sustainability is not up to the mark, there is potential for further enhancing environmental learning. It revealed that responsibility toward the environment is directly proportional to knowledge and concern. Findings also suggested that the university and the electronic media have a significant role to increase the environmental awareness among the students.

Keywords: Textile, Sustainability, Education, Environmental concern, Environmental knowledge, Environmental responsibility

1. Introduction

The RMG and textile sector is steering the economy of Bangladesh over the last three decades. In recent years it is contributing about ~ 85% to the total exports earning of the country. This is one of the labor-intensive sectors, which provides a large number of employment opportunity for millions of national labor force. Apparel sector of Bangladesh has been growing steadily and contributing to the national development significantly. On the opposite side of the same coin, this exponential growth of this industry has a detrimental effect on environment. The textile and apparel industries are responsible for environment pollutions to a great extent due to the intensive use of underground water, chemicals and dyes in the whole textile manufacturing process. In many cases, the extent of degradation has reached crisis proportions. Most of the indicators of environmental quality in Bangladesh are now far worse than in the developed countries. It seems that Bangladesh has been pursuing a

sustainable economic growth rather than sustainable development. As the result, the environmental degradation occurs in the forms of air pollution, water pollution, land subsidence and debris flow etc. The country will face a severe problem in near future if the environmental issues are not properly addressed. In response to this challenge, Bangladeshi factory owners have started to establish green factories. At present, 7 out of the top 10 green factories in the world are located in Bangladesh. To support and continue this initiative, it is important for current textile and apparel students to acquire environmental knowledge and develop their concern regarding the pollution.

Currently, many educational institutions in Bangladesh are offering programs related to textile and apparel to meet the increasing demand of competent human resources in this sector. These graduates are expected to lead this sector in upcoming years. Hence, the textile and apparel graduates - knowing environmental issues and acting responsibly is of paramount importance not only for the industries but also for the society.

This study attempts to assess the level of concern, knowledge and responsibility of outgoing undergraduate students majoring in textile and apparel regarding the environmental issues. The 1st semester new students were included in the survey for comparison purpose to assess the intellectual and mental development of the outgoing students on environmental issues over their 4 years of undergraduate program.

2. Literature Review

With the fastest growing textile sectors associated with some social and environmental externalities, which starts from the using of raw materials to the final products. In apparel sectors whole production depends on high use of energy and water. Both cotton and man-made fibers consume a lot of insecticides, petrochemicals in production and release toxic and harmful chemicals during garment production process that severely polluting the environment (Hessel et al., 2007, Ren 2000).

But recently industries are moving toward a sustainable stage where persons with knowledge on sustainability, ethics and skills are encouraged to join to continue a smooth production. It creates a new step to reduce environmental pollutions by using eco-friendly materials and chemicals, improved dyeing process, recycling of materials (Slater, 2003).

Though a sufficient detailed context, techniques and measurements related to social and environmental issues have been introduced in apparel and textile curriculum but there is a lack of experimental methods to evaluate the students learning outcome of sustainable knowledge and behavior (Black, 2008; Blanchard, 2007; Dickson et al., 2009; Fletcher, 2008; Hethorn and Ulasewicz, 2008). Some assessments suggest that environmental sensibility is increased with the knowledge of environment and pollution and it develops a positive attitude towards the green products (D'Souza, Taghian and Lamb, 2006). Environmental knowledge acts as a forerunner to increase the environment friendly behavior (Chan, 1999; Hines, Hungerford & Tomera, 1986/1987).

To develop sustainable knowledge among the apparel and textile students, Walker and Seymour (2008) took the advantage by designing charrettes. They found the charrette as a successful tool for learning the sustainability. Gulwadi (2009) has given emphasis on sustainable design principles using reflective journals though the student learning outcome has not been judged based on teaching method. Benn and Dunphy (2009) combined sustainability in a business program and prepared some case studies to provide students a better and perplexity understanding of sustainability. But there is a lack of evaluation method to judge the students learning and their behavioral changes.

Still knowledge is not enough to encourage someone to act as responsible. Another factor 'concern' plays a significant role for being a responsible person. Its significance was proven in different studies. Kim & Damhorst (1998) found that environmental knowledge is not only the prognostic fact to show the responsibility towards environment. Whereas Brosdahl & Carpenter (2010) suggested that when environmental knowledge is influencing to show the responsible behavior then environmental concern is performing as an intermediary between them. So, concern has the influence along with knowledge which directs to environmentally responsible behavior (Dispoto, 1977; Li, 1997; Maloney & Ward 1973; Takacs-santa, 2007). A study conducted by Takacs-Santa (2007) showed that an important prerequisite to maintain a long-lasting pro-environmental behavior is highly dependable on environmental concern. A significant positive relationship was found between consumers' environmental awareness and sustainable textile disposal behavior (Morgan & Birtwistle, 2009).

It was also noticed that with having appropriate attitude and concern for environment, sometimes environmental impacts are not considered while making the purchase decisions of clothing (Butler & Francis, 1997). To encourage someone to buy environment friendly products, eco-designers can contribute a vital role. The numbers of such designers are gradually increasing (Johnson, 2006). These designers can incorporate different green and sustainable practices into the whole textile manufacturing processes. These practices will give more options to select environment friendly clothing.

3. Objectives

1. To assess the knowledge and concern level of outgoing textile students on environmental pollution causes by textile and apparel industries.
2. To know how much the outgoing students are conscious for their environmental responsibilities.
3. To identify the most efficient and effective platform to acquire the environmental knowledge and concern.
4. How do concern and knowledge sensible to someone responsibility towards environment.

4. Methodology

4.1 Questionnaire development

A deep consideration was given to the fundamental concepts of environmental knowledge related to textile and apparel for developing the questionnaire. In concern and knowledge segments, the questions were developed based on textbooks covering the textile related environmental issues that are being taught in undergraduate program. A careful differentiation was made while setting the questions in order to compare the level of understanding of the outgoing students with the fresher. The concern part was designed with yes/no options by putting a provision of giving the explanation or an example for choosing the 'yes' option in order to minimize the answers given by random guessing. Two open set questions were also included in this part. The knowledge part was set with multiple choice questions and the responsibility part was designed with some open set questions along with some binary choice questions. A challenge in constructing multiple choice questions is the creation of incorrect answer options. Incorrect answers that are "too" incorrect make a question too easy, while incorrect options that are too close to the correct answer make the

question too difficult or confusing. A group of faculty members specialized in various fields of textile and apparel was asked to review the whole questionnaire to make it appropriate for undergraduate students of textile and apparel. The faculty members worked on eliminating and creating additional questions in an iterative fashion. Through the deliberation and consensus of faculty members the pool of questions was reduced by eliminating those deemed to be too difficult, too easy, too specific, or not capturing a fundamental concept of environment. Some changes were made based on their feedback in the MCQ part in such a way that they were neither too easy nor too hard. In the responsibility part the real-life critical situations including economic, environment and academic knowledge were considered since the students have to give explanation in favor of their answers. An extra supplement, the major sources, was also included from where the students have heard most about the bad impacts of textile activities on environment or environment pollution.

4.2 Data collection

In this research, outgoing and the 1st semester students of two leading textile universities, one public and one private, in Bangladesh were surveyed by using random sampling. The questionnaires were distributed and collected from 163 students, among which 151 with complete feedback regardless of the correctness of the answers. Among 151 students, 83 were 1st semester and 68 were outgoing students. Which indicates (151/163×100%) = 92.4% total response rate. Participants were made aware through an information sheet that participation was voluntary and that all responses would remain confidential and anonymous. That's why the scores they earned were not known to whom it might belong.

4.3 Data analysis

Two sample mean test using Z test statistic was applied to differentiate the levels of concern, knowledge and responsibility of 1st semester and outgoing students. The proportion test was carried out to differentiate the performance of outgoing students against the fresher by comparing their scores. Binary logistic regression was used to identify the most potential source that playing the significant role to build up the consciousness among the students about pollutions. The multiple regression analysis was done to assess the comparative role of knowledge and concern for showing the responsibility towards the environment. All these analyses were carried out by SPSS.

5. Results and Discussion

The present study was carried out in order to assess the level of concern, knowledge and responsibility developed in outgoing textile students through their 4-year undergraduate program by a comparative analysis using two sample mean test between new and outgoing students. The binary logistic regression analysis was carried out to identifying the sources that influencing students to be conscious, knowledgeable and the multiple regression analysis was applied to measure the willingness of students to show the responsibilities from their consciousness and knowledge gained. The necessary attempts are following:

Development of hypothesis on environmental concern, knowledge and responsibility for two sample mean test:

$$H_0: \mu_1 - \mu_2 = 0$$

$$H_1: \mu_1 - \mu_2 \neq 0$$

This test was conducted at 5% (α = 0.05) level of significance.

Where,

μ_1 & $\bar{x}_1$ → population & sample mean score of outgoing students for testing concern, knowledge and responsibility

μ_2 & $\bar{x}_2$ → population & sample mean score of 1st semester students for testing concern, knowledge and responsibility

S_1^2 → Sample variance of outgoing students for testing concern, knowledge and responsibility

S_2^2 → Sample variance of 1st semester students for testing concern, knowledge and responsibility

n_1 → Sample size of outgoing students for testing concern, knowledge and responsibility

n_2 → Sample size of 1st semester students for testing concern, knowledge and responsibility

Test statistic:

$$Z = \frac{|(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)|}{\sqrt{(\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2})}}$$

Table 1: Two sample mean test between new and outgoing students with descriptive statistics

		Descriptive Statistics				Value of test statistic, Z	Significance
Environmental criteria	Students	Mean	Std. Deviation	Min.	Max.		
Concern	1st	4.04	2.802	0	10	|3.86587|	**0.000111***
	outgoing	5.63	2.218	2	13		
Knowledge	1st	5.37	2.50	1	11	|25.434|	**0***
	outgoing	13.28	1.22	10	15		
Responsibility	1st	4.23	2.383	0	10	|2.4908|	**0.013***
	outgoing	5.16	2.179	0	10		

**p-value<0.05*

Two samples mean test between 1st semester and outgoing students from Table 1 showed statistically the significant relationship in environmental concern, knowledge and responsibility between 1st semester and outgoing students. It is obvious as one group just has started their learning and other group has almost finished their study.

Although it is cleared from the descriptive statistics of Table 1 that the mean scores with minimum and maximum values are better for the senior students than the new students yet the changing of proportions for the two groups of students were checked by the proportional test based on three quartiles (Q_i, where i = 1, 3) of marks for concern, knowledge and responsibility. The results are presented in Table II.

Two-proportion test:

$$H_0: P_1\text{-}P_2=0$$

$$H_1: P_1 > P_2$$

This test was conducted at 5% ($\alpha = 0.05$) level of significance.

Where,

P_1 & p_1 → population & sample proportion of senior students scored greater than i^{th}quartile of marks

P_2 & p_2 → population & sample proportion of new students scored greater than i^{th} quartile of marks

n_1 → total no. of outgoing students

n_2 → total no. of new students

x_1 → total no. of students scored greater than i^{th} quartile of marks from outgoing students

x_2 → total no. of students scored greater than i^{th} quartile of marks from new students

(n_1- x_1) → total no. of students scored less or equal to i^{th} quartile of marks from outgoing students

(n_2- x_2) → total no. of students scored less or equal to i^{th} quartile of marks from new students

$$p_1 = \frac{x_1}{n_1}, \quad p_2 = \frac{x_2}{n_2} \quad \text{and} \quad p = \frac{x_1+x_2}{n_1+n_2}, \quad q = 1 - p$$

Test statistic:

$$Z = \frac{(p_1 - p_2) - (P_1 - P_2)}{\sqrt{pq(\frac{1}{n_1} + \frac{1}{n_2})}}$$

Table 2: Two proportion test for new & outgoing students on 1st& 3rd quartiles of marks

(i) greater than 1st quartile, Q_1 (25% marks)

Criteria	x_1	p_1	x_2	p_2	p	q	Z_{cal}	Acceptation of H_0 or H_1	P-value
Concern	57	0.84	43	0.52	0.662	0.338	4.14	H_1	0.0001
Knowledge	68	1	51	0.62	0.79	0.21	5.7	H_1	0.0001
Responsibility	61	0.9	60	0.722	0.8	0.2	2.72	H_1	0.0034

Z_{tab} = 1.654 at α = 0.05

(ii) greater than 3rdquartile, Q_3 (75% marks)

Criteria	x_1	p_1	x_2	p_2	p	q	Z_{cal}	Acceptation of H_0 or H_1	P-value
Concern	2	0.03	0	0	0.013	0.987	1.62	H_0	0.0537
Knowledge	37	0.54	0	0	0.25	0.75	7.62	H_1	0.0001
Responsibility	3	0.04	2	0.024	0.033	0.967	0.55	H_0	0.2912

Z_{tab} = 1.654 at α = 0.05.

In the case of knowledge, the results were significant for both quartiles whereas for concern and responsibility, the results were significant in the 1st quartile but insignificant for the 3rd quartile. The overall results indicated that the outgoing students were comparatively more knowledgeable about the environment than the new students but in terms of competency, the level of knowledge, it is rather frustrating, only ~55% outgoing students were able to score > 75% of marks. The results were also revealed that the level of understanding of outgoing students on concern and responsibility domains were higher than the new students however, the overall results were very disappointing if the 3rd quartile (75% marks) was being considered as the minimum standard level. A negligible no. of outgoing students could score > 75% of marks in these two domains. It is very difficult to specify the reasons behind these poor results. It might be the lack of suitable platform to show the responsibility, lack of practical activities in academic education, limited scope to get involved in the social activities, socio-cultural behavior of the country towards environment, absence of academia-industrial collaborative researches etc.

An attempt was also made to identify the major platform (mass media, academic activities, groups and sourcing entity) from where students have heard most about the bad impacts of textile activities on environment or environmental pollutions by the binary logistic regression. The major sources of interest with categories are as follows–

Mass media (MM) → internet, TV/radio, newspaper

Academic (ACA) → school, college, university, parent

Groups → friends and follows, government agencies, library, energy suppliers, NGO

Sourcing entity (SE) → journal, speech, magazine

[Reference category- newspaper (MM), parent (ACA), NGO (Groups), magazine (SE)]

Table 3: Binary logistic Regression (Enter method) for identifying more effective categories under the major sources

Model summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1[a]	151.671[a]	0.311	0.416

[a] Estimation terminated at iteration number 20 because parameter estimates changed by less than 0.010.

Hosmer and Lemeshow Test

Step	Chi-square	df	Significance
1	5.897	7	0.522

Categories in the equation

	Source (with categories)	Coefficient ,β	Standard Error	Wald	df	Significance	Odds ratio, e^{β}
Step 1[b]	**Mass media**			8.482	2	0.014	
	Internet	1.358	0.565	5.774	1	**0.016***	3.889
	TV/Radio	2.285	0.865	6.98	1	**0.008***	9.822
	Newspaper	0[b]			0		
	Academic			21.612	3	0.000	
	University	4.015	1.174	11.696	1	**0.001***	55.420
	College	1.742	1.606	1.177	1	0.278	5.708
	School	1.353	1.372	0.972	1	0.324	3.867
	Parent	0[b]			0		
	Source Entity			4.004	2	0.135	
	Journal	1.089	0.653	2.780	1	**0.095***	2.970
	Speech	0.150	0.567	0.070	1	0.792	1.162
	Magazine	0[b]			0		
	Groups			2.602	4	0.627	
	Energy suppliers	18.950	1.444	8.68	1	-	1.69E11
	Friends/Follows	-1.074	0.778	1.908	1	0.167	0.342
	Government Agencies	-0.642	0.940	0.440	1	0.507	0.536
	Libraries	-1.316	0.926	2.019	1	0.155	0.268
	NGO	0[b]			0		
	Constant	-4.253	1.444	8.68	1	0.003	

Dependent variable: semester (reference category: students from 1st semester).

[b] *p-value<0.10*

The model summary showed the goodness of fit of the model, where chi-square was the difference between the null model (with constant only) and the model containing the predictors, the Cox & Snell R square and Nagelkerke R square, both were approximation of

R^2 in linear regression though these were not the close analogy. The large value of -2 Log likelihood statistic showed how poorly this model predicted the influence of the mentioned categories of sources on student's concern, knowledge and responsibility. Cox & Snell R^2 with an upper bound less than 1 and Nagelkerke R^2 that couldn't be scaled up to 1 showed 31.1% and 41.6% of total variations respectively in concern, knowledge and responsibility, which explained by the above categories (predictor variables). On the other hand, Hosmer and Lemeshow Test supported that the model fitted the data well since p-value = 0.552 which was greater than the level of significance at 5%.

Category wise data at the last part of Table 3 showed that four categories from the three different sources having the significant results. These significant results revealed that how a student became more concern, knowledgeable and responsible gradually over the period of their undergraduate program. Outgoing students those who watched TV, listened radio and used internet were 9.822 times and those who only read newspapers were 3.889 times more concern, knowledgeable and responsible about environmental pollutions than the new students. New students had very limited time to use internet, TV compared to the outgoing students since they had the limited scope to use these medias at the school and college levels due to the restriction imposed by their parents. The university played a vital role for the development of environmental concern, knowledge and responsibility evident to see the odd ratio which was 55.420 times more for the university than the parent's advice. Similarly, journal had 2.970 times more influence to buildup these qualities among the outgoing students compared to the new students as they got more chances to read the journals.

Both groups, new and outgoing students, were also asked to select the best source from which they were benefited or will be benefited more for enriching their learning about textile related environmental issues. Binary logistic Regression was applied to solve this issue and the final result is presented in Table 4.

Table 4: Binary logistic Regression (Enter method) for identifying the best source for enriching the learning about environmental pollution

Model summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1[a]	174.570[a]	0.198	0.265

[a] Estimation terminated at iteration number 20 because parameter estimates changed by less than 0.001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Significance
1	0.000	2	1.000

Sources in the equation

	Major source	Coefficient, β	Standard error	Wald	df	Significance	Odds ratio, e^{β}
Step 1[b]	Academic	1.540	0.698	4.870	1	**0.027***	4.667
	Groups	1.723	1.262	1.863	1	0.172	5.600
	Mass media	-0.069	0.647	0.011	1	0.915	0.933
	All major sources	-1.214	0.718	2.857	1	**0.091***	0.297
	Sourcing entity (reference category)	0[b]			0		
	Constant	-0.336	0.586	0.330	1	0.566	0.714

Dependent variable: semester (reference category: students from 1st semester). [b]*p-value<0.10*

Again, chi-square value was large but using Cox & Snell R^2 and Nagelkerke R^2, the total variations in concern, knowledge and responsibility were 19.8% and 26.5% respectively, which explained by the above categories (predictor variables) and the Hosmer and Lemeshow model fitted the data well since p-value = 1.000 which was greater than the level of significance at 5%.

Table 4 represented the overall choice about mentioned all major sources. Here, academic and all mentioned sources were chosen as the best sources by students as these two showed significant results, where academic had the highest impact. The highest impact of academic was due to the direct attachment of students with their parent, schools, colleges and universities where the students had the opportunity to enrich their knowledge continuously. The odd ratio revealed that academic and all major sources had 4.667- and 0.297-times higher impact respectively on outgoing students than the new students to become more concern, knowledgeable and responsible about textile related environmental pollutions.

Finally, the dependency of responsibility on knowledge and concern was analyzed by multiple regression analysis and the results are presented in Table 5.

Table 5: Multiple regression analysis to measure the dependency of responsibility based on knowledge and concern

	Coefficients	Standard error	t	Significance
Intercept	2.739	0.455	6.025	0.000
Environmental knowledge	0.086	0.042	2.077	**0.039***
Environmental concern	0.247	0.070	3.542	**0.001***

Note: R^2 = 0.137 and Adjusted R^2 = 0.126. **p-value < 0.05*

Table 5 showed the average changes in responsibility against acquiring knowledge and being concern on environmental pollutions. The significant results in Table 5 revealed that the responsibility was directly proportional to knowledge and concern. Responsibility will increase with the increase of the knowledge and concern levels. The data also revealed that the concern level had more impact over the knowledge for being a responsible person to protect the environmental. This is because the responsibility is not always a matter of what one is instructed to do but inherently what one intends to do. Therefore, when students are directed to keep the environment neat and clean then their concern and education will help them more than others who are unaware and poorly educated.

Outcomes from the open questions:

Some open questions were also set in concern and responsibility parts to know more insight of the students' thinking about the sustainability of textile and apparel sector. The responses and remarks are compiled below.

In the concern part, the first question was "write something about the compliance issues of Bangladeshi garment industries". In response to this question, the no. of non-response and wrong answers from new students were too high. Only 4 students (4.82%) could reach nearer to the exact answer where they used correct examples to define the compliance like safe building, better payment and sanitation for workers etc. On the contrary, 55.58% of the outgoing students could answer the question satisfactorily, where 32 students could write the definition of compliance precisely and 6 students explained compliance with the help of an example like maintaining building safety.

The 2nd question in the concern part was about the noncompliance disasters in the history of Bangladeshi garment industries. Here respondents were asked to write the worst incidents of noncompliance. The collapse of Rana Plaza and fire in Tazreen Fashions were considered to be the worst industrial accidents over the last few decades. However, among the new students, only 2 students (2.41%) could write the correct answer against 100% correct answer from the outgoing students. Although the outgoing students were fully aware of the noncompliance tragedies, their answers to the 1st question were not up to the mark.

In responsibility part, four questions were kept open. When students were asked "a company needs to use toxic chemicals for the better production. Then what do you want to suggest them?" From 1st semester 14 students (16.87%) answered to avoid toxic chemicals or use chemicals without damaging environment and 14 students (16.87%) said to search the alternative chemicals or refine the toxic chemicals or taking some safety measures for the production. The rest of the new students either gave wrong answers or no responses. From outgoing students, just 15 students (22.1%) said to avoid the toxic chemicals to save the environment. Interestingly, 52 students (76.5%) advised to search the alternative chemicals which are less toxic and 1 student (1.47%) suggested to carry on the existing process as it is better for the production. The majority of the outgoing students were ready to compromise the environment for smooth production. They showed poor responsibility towards the environment.

Again, when students were asked to choose a job offered by two textile factories; the 1st one has offered handsome salary and the 2nd one offered an average salary but the factory is more environment-friendly than the 1st one. It was a priority check whether they choose money or sacrifice an amount of money for the betterment of the future environment. From new students, 7 students (8.43%) chose the 1st job for high salary and liked to handle risks. Others selected the 2nd job by mentioning several reasons namely: environment consciousness (17 students, 20.48%), health consciousness (5 students, 6.802%), moral

reasons (4 students, 4.82%), environmental and health consciousness (2 students, 2.41%), environmental and moral issues (2 students, 2.41%). The remaining students (46 students, 55.42%) did not give any answer. On the other hand, majority of the outgoing students chose the 2nd job considering the following issues: environmental and health issues (50 students, 73.53%); environment conscious (4 students, 5.88%); moral obligation (7 students, 10.29%); personal health consciousness (4 students, 5.88%). A few exceptions were also noticed, they gave emphasis on the 1st job for the higher salary (3 students, 4.41%). Overall, it was observed that with the advancement of study, most of the students tend to choose the 2nd job considering either the environment or health or both.

Next question in this category was the participation of students in any cleaning activities. The objective of this question was to determine the students' willingness to involve in environment protection activities. 63 from the 1st semester and 15 from the outgoing students did not participate to any cleaning activities. From the outgoing students 30 were involved in school cleaning activities (44.18%); 23 were involved in colony/community cleaning activities (33.82%). While only 20 from new students (24.1%) were joined in different cleaning programs organized by schools, colleges, colonies, communities or social clubs.

In the same way, the students were asked if they have a chance to build a garment factory then will they try to have the LEED certification or just build ordinary garment factories for making more profit? 77 new students had no response and only 6 students (7.23%) said yes to build the LEED certified garments. The non-response is quite obvious for new students as they have pretty less idea about LEED certification process and the consequences of building a LEED certified garment factory. Among the outgoing students 31 (45.59%) responded that they didn't know that the LEED certified garments need more money to maintain the certification parameters. The ignorance on this issue at this stage was undesirable. 38 of them knew about the extra costing. Interestingly, 64 students (94.12%) made an affirmative response to build a LEED certified garments, which indicated their positivity towards a sustainable business for future.

6. Limitations

1. A few students did not answer all questions; therefore, they were omitted before the final analysis.
2. Using multiple choice questions to assess the knowledge of students on a vast area like sustainability limit the scope to evaluate.

7. Conclusion

The impact of industrialization on environment is a major concern in today's world. Sustainable approaches have to be adopted to mitigate the environmental damage by industrialization because environment does not wait till the country becomes well-off. The damages will be irreparable, and environmental degradation will choke economic growth itself. The experience of several developing countries has shown that it is possible to achieve economic growth without destroying the environment.

Textile industry is one of the major environment polluters particularly in Bangladesh. Since textile graduates are the frontline soldiers to lead this sector therefore, they should be properly educated and trained to face all textile related environmental challenges. It is apparent from the present research that textile undergraduates do have concern for the environment, as well as a basic understanding how the textile production process pollute the

environment. However, their understanding is not up to the mark to design, develop and manage the whole process. It is also revealed that universities play the key role to develop environmental concern, knowledge and responsibility among the students. Therefore, it is the universities' responsibility to ensure that their students are given proper knowledge, skills, and abilities to become an educated person and make the world a better place for living. To make it pragmatic, it is suggested that a student should engage in various activities during his/her student life as it is revealed that such activities enhance the knowledge and responsibility. Textile educators must know what motivate this generation and how their collective social awareness is being expressed in and outside the classroom. Universities must arrange more seminars, symposiums and training programs on environment with some real life or participative activities where students have to attend interactive sessions and perform predetermined activities. In addition, their performance evaluation on these programs can be added in their academic result. On a broader sense, such involvement will make them socially responsible human being and as a result, they can show desired responsibility toward society, environment and humanity. Though this research was carried out to assess student's capability to address the environmental sustainability but to protect environment in a balanced way in future with them, a strong and encouraging social movement is mandatory with the collaboration and support of the international agencies, civic society, NGOs, media and press.

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